

IN THE CLAIMS

The following is a complete listing of claims with a status identifier in parenthesis.

LISTING OF CLAIMS

1. (Currently Amended) A method for transmitting a plurality of control and signaling information between a base station and one or more mobile stations in a wireless communication network, the method comprising:

modifying one or more prescribed fields in an existing media access control (MAC) channel to carry a plurality of control and signaling information directly between the base station and at least one mobile station by performing a cyclic redundancy check (CRC) calculation over the contents of a control field and mobile station identifier, wherein the control and signaling information includes one or more identifiers, and wherein one or more of the identifiers includes a message type.

2. (Previously Presented) The method according to claim 1, wherein the control and signaling information includes one or more identifiers, and wherein one or more of the identifiers includes routing information.

3. (Original) The method according to claim 2, wherein the routing information indicates the one or more mobile stations for which a transmission is intended.

4. (Previously Presented) The method according to claim 3, wherein the plurality of control and signaling information comprises and signaling information.

5. (Previously Presented) The method according to claim 3, wherein the transmission is simultaneously transmitted and intended for a plurality of mobile stations.

6. (Original) The method according to claim 2, wherein the message type indicates a type of action to be carried out by a recipient mobile station.

7. (Previously Presented) The method according to claim 1, wherein the control and signaling information includes message address information for a single mobile station.

8. (Previously Presented) The method according to claim 1, wherein the control and signaling information includes common message address information for a plurality of mobile stations.

9. (Previously Presented) The method according to claim 8, wherein the control and signaling information includes an identifier indicating a broadcast transmission to the plurality of mobile stations.

10. (Previously Presented) The method according to claim 8, wherein the control and signaling information includes an identifier indicating a multicast transmission for a prescribed number of the plurality of mobile stations.

11. (Previously Presented) The method according to claim 1, wherein the control and signaling information includes an identifier indicating available Walsh space for transmission of data between the base station and the one or more mobile stations.

12. (Original) The method according to claim 2, wherein a routing information identifier comprises an explicit set of bits transmitted in a frame of the existing control channel.

13. (Previously Presented) The method according to claim 1, wherein the existing control channel includes a message identification field and the control field.

14. (Previously Presented) The method according to claim 13, wherein the control field includes the control and signaling information.

15. (Cancelled)

16. (Currently Amended) The method according to claim 14 ~~15~~, wherein the transmission includes the mobile station identifier, the CRC calculation, and the control field.

17. (Original) The method according to claim 15 wherein the transmission includes the CRC calculation and the control field, and wherein routing information is derived at a receiving mobile station by performing a CRC calculation on the received transmission together with the receiving mobile station's mobile station identifier.

18. (Previously Presented) The method according to claim 12, wherein routing information for a transmission is derived via an logical exclusive OR operation performed on the explicit set of bits and a cyclic redundancy check (CRC) calculated on the contents of a control frame in the existing control channel.

19. (Original) The method according to claim 13, wherein the message identification field comprises at least two parts, wherein a first part identifies a recipient mobile station for the transmission and wherein a second part indicates a message type.

20. (Currently Amended) A method for transmitting a plurality of control and signaling information between a base station and one or more mobile stations in a wireless communication network, the method comprising:

modifying one or more prescribed fields in an existing media access control (MAC) channel to carry one or more prescribed message identifiers between the base station and the one or more mobile stations by performing a cyclic redundancy check (CRC) calculation over the contents of a control field and mobile station identifier,

wherein the one or more prescribed message identifiers comprise control and signaling information selected from the group consisting of routing information, message type, control information, and a signaling message,

whereby express signaling occurs directly between the base station and at least one mobile station.